



STEREO CASSETTE TAPE DECK

DT-780

INSTRUCTION BOOK

Congratulations on your choice of the Mitsubishi Cassette Tape Deck Model DT-780. For best performance results, please read this instruction book carefully before use.

WARNING – TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

For future reference a space has been provided below for recording the serial number of your cassette tape deck.

Serial No.

Wir beglückwünschen Sie zum Kauf des Mitsubishi-Stereo-Cassettendecks DT-780. Bitte lesen Sie die Bedienungsanleitung vor der Benutzung des Gerätes sorgfältig durch, damit Sie in den Genuss seiner vollen Leistung kommen.

VORSICHT: VOR REGEN UND FEUCHTIGKEIT SCHÜTZEN, SONST GEFAHR VON FEUER ODER ELEKTRISCHEN SCHLÄGEN.

Tragen Sie bitte die Serien-Nummer Ihres Gerätes in das freigelegte Kästchen ein, damit Sie später leicht darauf zurückgreifen können.

Serien-Nr.

Nous vous félicitons d'avoir arrêté votre choix sur une platine magnétophone à cassettes stéréo Mitsubishi DT-780.

Avant d'utiliser votre appareil, nous vous recommandons de lire attentivement cette notice d'emploi pour que vous puissiez en profiter au maximum.

ATTENTION: A PROTEGER CONTRE LA PLUIE ET L'HUMIDITE, RISQUE D'INCENDIE OU DE CHOC ELECTRIQUE.

Afin de l'avoir toujours à la portée de la main, veuillez inscrire le numéro de série de votre appareil dans la case réservée à cet effet.

Numéro de série

SPECIFICATIONS

TECHNISCHE DATEN

CARACTERISTIQUES
TECHNIQUES

ENGLISH	
Type	4 track, 2 channel Stereo Cassette Deck
Motor type	
Capstan motor	DC servo motor
Reel motor	DC motor
Head material	
REC/PB head	Hard permalloy
Erase head	Ferrite
Tape speed	4.75 cm/s (1-7/8 ips)
Tape speed accuracy	± 1 %
Wow and flutter	0.045 % Wrms
Fast forward/rewind times	85 sec. (C-60 type)
SN ratio (400 Hz, 3 % THD, Weighted, Metal tape)	
Dolby NR out	58 dB
Dolby NR in	66 dB
Frequency response (± 3 dB, record level 160 pwb/mm – 30 dB)	
Normal tape	40 – 14.000 Hz
Special tape	40 – 16.000 Hz
Metal tape	40 – 17.000 Hz
Fe-Cr tape	40 – 16.000 Hz
Erasure ratio (1 kHz)	60 dB
Sensitivity/Impedance	
Mic input	0.3 mV (2.2 kohms)
Line input	100 mV (47 kohms)
Output level	
Line output	440 mV (22 kohms load)
Headphone	0.8 mW (8 ohms load)
Power consumption	18 W
Dimensions (W x H x D)	424 x 106 x 292 mm (16-11/16 x 4-11/64 x 11-1/2")
Weight	5.5 kg (12.1 lbs)

“DOLBY” and Double D symbol “  ” are trademarks of Dolby Laboratories.
Noise reduction system manufactured under licence from Dolby Laboratories.
Specifications of this unit are subject to change without notice for improvement.

DEUTSCH	
Typ	4-Spur-2-Kanal-Stereo-Cassettendeck
Motoren	
Tonwellenmotor	Gleichstrom-Servomotor
Wickelmotor	Gleichstrommotor
Tonkopfmaterial	
Aufnahme-/Wiedergabekopf	Permalloy
Löschkopf	Ferrit
Bandgeschwindigkeit	4,75 cm/s
Toleranz der Bandgeschwindigkeit	± 1 %
Gleichlaufschwankungen	0,045 % Wrms
Umspulzeit	85 s (Cassette C-60)
Rauschabstand	
(400 Hz, 3 % Gesamtklirrfaktor, gewichtet, Reineisenband)	
Dolby-Rauschunterdrückung AUS	58 dB
Dolby-Rauschunterdrückung EIN	66 dB
Frequenzgang	
(± 3 dB, Aufnahmepegel 160 pwb/mm – 30 dB)	
Normalband	40 – 14.000 Hz
CrO₂-Band	40 – 16.000 Hz
Fe-Cr-Band	40 – 16.000 Hz
Reineisenband	40 – 17.000 Hz
Löschverhältnis (1 kHz)	60 dB
Empfindlichkeit/Impedanz	
Mikrofoneingang	0,3 mV (2,2 kΩ)
Direkteingang	100 mV (47 kΩ)
Ausgangspegel	
Direktausgang	440 mV (22 kΩ Belastung)
Kopfhörer	0,8 mW (8 Ω Belastung)
Leistungsaufnahme	18 W
Abmessungen (B x H x T)	424 x 106 x 292 mm
Gewicht	5,5 kg

Die Bezeichnung „Dolby“ und das Doppel-D-Symbol „  ” sind Warenzeichen der Dolby Laboratories.

Fertigung des Rauschunterdrückungssystems unter Lizenz der Dolby Laboratories.

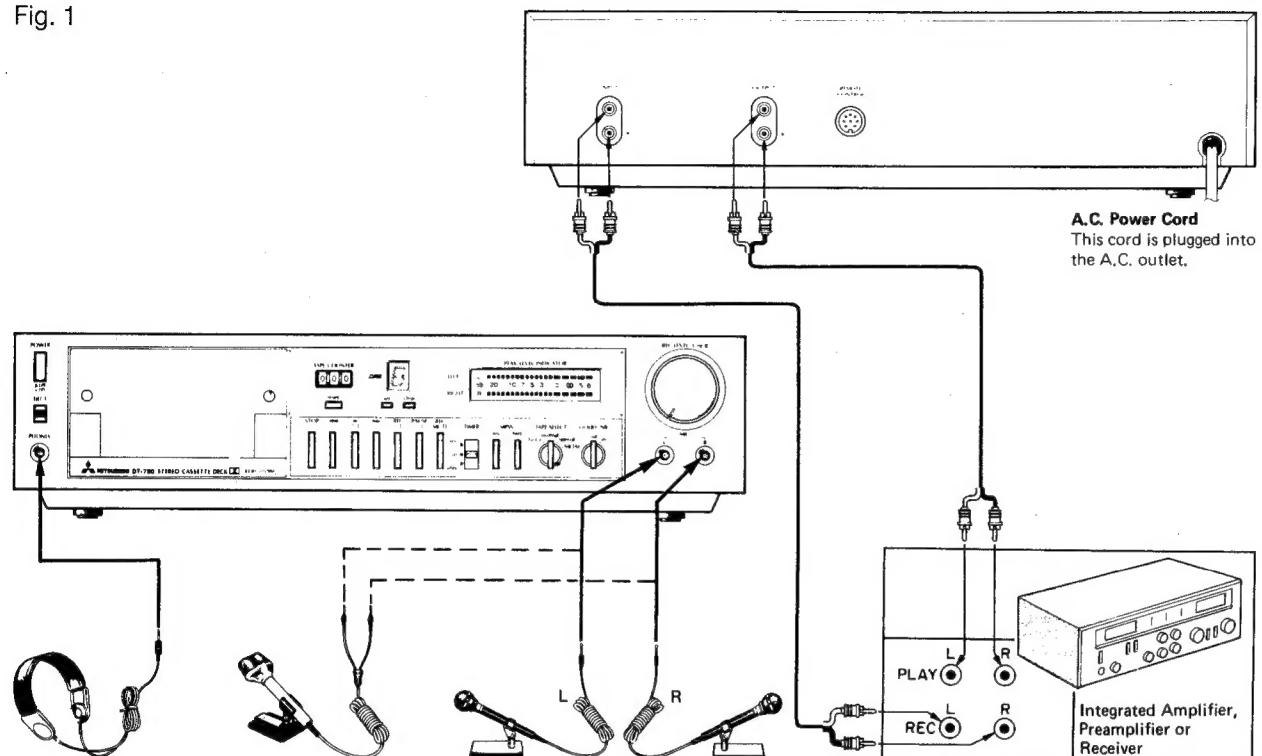
Änderung der technischen Daten wegen Verbesserungen jederzeit vorbehalten.

FRANCAIS	
Type	Platine magnétophone à cassettes stéréo, 4 pistes, bicanal
Moteurs:	
Cabestan	Servo-moteur à courant continu
Bobine	Moteur à courant continu
Matériaux des têtes:	
tête d'enregistrement-lecture	Permalloy due
tête d'effacement	Ferrite
Vitesse de défilement de la bande	4,75 cm/s
Fluctuation de la vitesse de défilement	± 1 %
Pleurage et scintillement	0,045 % W _{eff}
Durée de l'avance rapide et du retour rapide	85 s (modèle C-60)
Rapport signal/bruit:	
(400 Hz, taux de distorsion harmonique globale 3 %, pondérée, bande métallique)	
sans le système Dolby	58 Décibels
avec le système Dolby	66 Décibels
Réponse en fréquence:	
(± 3 dB niveau d'enregistrement)	
160 pwb/mm – 30 dB	
bande normale	40 – 14.000 Hz
bande spéciale	40 – 16.000 Hz
bande métallique	40 – 17.000 Hz
bande Fe-Cr	40 – 16.000 Hz
Dynamique d'effacement (1 kHz)	60 décibels
Sensibilité/impédance:	
Entrée microphone	0,3 mV (2,2 kohms)
entrée ligne	100 mV (47 kohms)
Niveau de sortie	
Sortie de circuit	440 mV (charge 22 kohms)
Casque	0,8 mW (charge 8 ohms)
Consommation	18 W
Dimensions (L x H x P)	424 x 106 x 292 mm
Poids	5,5 kg

«Dolby» et le symbole en Double D «  » sont des marques déposées de Dolby Laboratories.
Le système supresseur de parasites est fabriqué sous licence de Dolby Laboratories.
Les caractéristiques techniques de cet appareil peuvent être modifiées sans préavis.

MEMO

Fig. 1



For remote control, connect the optional remote control unit model UN-50 to the "REMOTE CONTROL" terminal on the rear panel.

Fig. 2

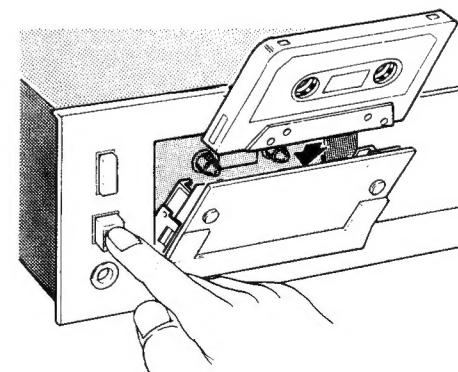


Fig. 3

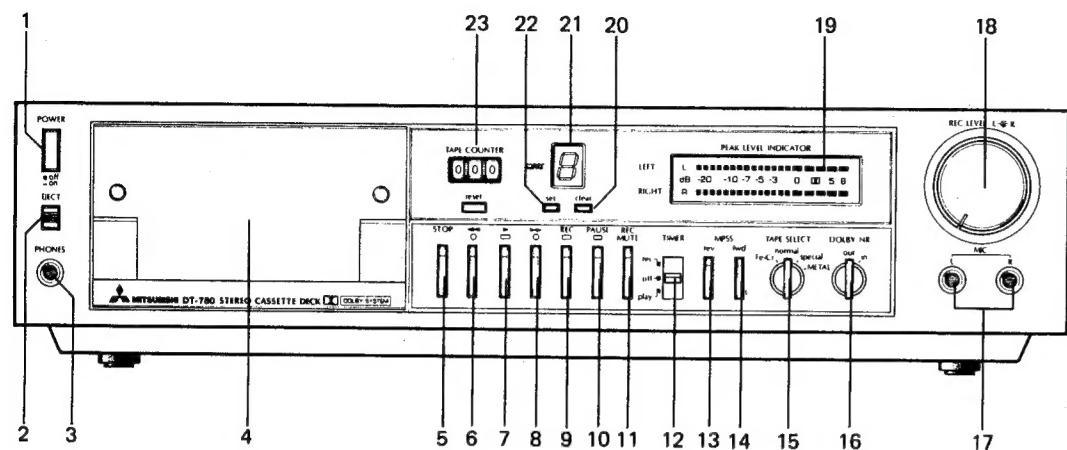


Fig. 7

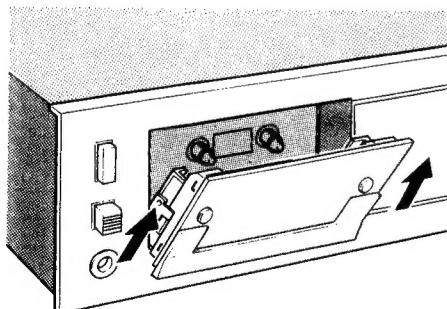


Fig. 8

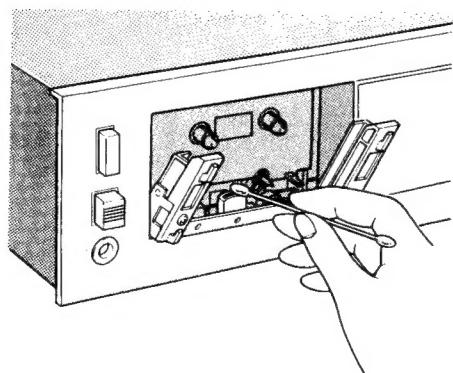


Fig. 4

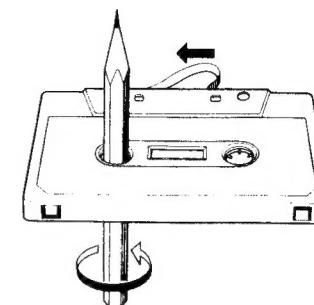


Fig. 5

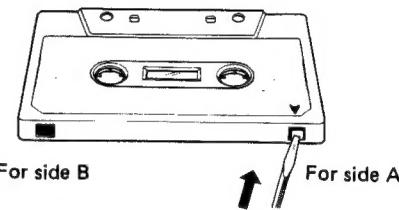
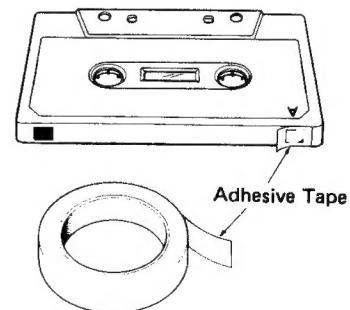


Fig. 6



PRECAUTIONS

1. GENERAL

BE SURE TO USE THE CORRECT A.C. POWER SOURCE.

The A. C. power requirement is marked on the rear of this unit. Connection to any other power source may cause damage to this unit and/or severe electrical shock.

DO NOT PLUG IN OR UNPLUG THE POWER CORD WITH WET HANDS.

There is great danger of severe electrical shock if the power cord is plugged in or unplugged with wet hands. Do not attempt to unplug the cord from an A. C. outlet by pulling the cord. Firmly grasp the plug to remove it from the A. C. outlet.

DO NOT ALLOW WATER OR ANY FOREIGN MATERIAL TO GET INSIDE THIS UNIT.

Should water or a metallic object accidentally fall into this unit, immediately disconnect the power cord and consult your authorized service dealer.

HANDLE THE POWER CORD WITH CARE.

Do not bend sharply or twist the power cord. If the insulation becomes damaged, the conductors break or poor contact occurs, request service from your authorized service dealer. Continued use under these conditions, may cause fire or electrical shock.

DO NOT TOUCH THE INSIDE OF THIS UNIT.

There are high voltages inside this unit. Never remove the bottom cabinet and top cover. All inspections and repair, including fuse replacement, should be carried out by your authorized service dealer.

DISCONNECT THE POWER CORD AT THE FIRST SIGN OF TROUBLE.

At the first sign of unusual noise, odor or malfunction, disconnect the power cord and consult your authorized dealer. Continued use under these conditions may increase damage or cause additional problems.

2. LOCATIONS

AVOID PLACEMENT IN DIRECT SUNLIGHT, NEAR AN AIR CONDITIONER, ETC.

This unit may become unstable if operated in extremely high or low temperatures. Place it in a well ventilated area for proper heat dissipation. Avoid placement in direct sunlight, near air conditioners, poorly ventilated areas or in areas of excess humidity or dust.

3. CONNECTIONS

DO NOT PLUG IN THE POWER CORD BEFORE MAKING CONNECTIONS.

For your safety, do not plug in the power cord until all connections have been made.

BE SURE TO TURN OFF THE POWER TO THE AMPLIFIER BEFORE MAKING CONNECTIONS.

This is to prevent damage to the speakers from the popping noise which occurs when plugging or unplugging the cords.

USE EXTREME CARE IN MAKING THE CORRECT CONNECTIONS.

If you reverse the R (right) and L (left) leads, you will reverse the stereo location of R and L channels.

MAKE ALL CONNECTIONS SECURE.

If any of the plugs should become loose or disconnected, a hum may develop. If this is not corrected, deterioration of sound quality and possible damage to the speakers may result.

USE ONLY SHIELDED CORDS FOR THE LEADS.

Use only shielded cords (supplied with this unit) for interconnections. Do not use cords longer than 2 m (6 feet). Excessive lead lengths can deteriorate high frequency response and are subject to interference that can result in hum or noise.

4. OPERATIONS

WHEN NOT IN USE, SET THE TIMER SWITCH TO THE "OFF" POSITION

If the timer switch is set to the "RECORD" or "PLAY" position, recording or playback will automatically start when you switch on the power. This may cause unwanted erasing.

ALWAYS KEEP THE HEADS CLEAN.

Remove any accumulation of dirt or dust on the heads, pinch-rollers and capstans to avoid deterioration of sound quality or poor recording.

Please refer to MAINTENANCE for the correct procedure of cleaning the heads.

DO NOT USE THE FOLLOWING TAPE CASSETTES.

- Tape cassettes which are poorly finished or deformed, or those which cause loud mechanical noises in FF or REW mode.
- Low priced tape cassettes without guide rollers or pad springs inside the cassettes.

Please refer to INFORMATION ON CASSETTE TAPE for details on recommended cassette tapes.

5. CLEANING THE CABINET

Wipe the cabinet with a soft cloth when it becomes dusty. If it should get excessively dirty, dampen a soft cloth in a weak solution of mild soap and water, wring it out dry and clean. Any volatile materials such as alcohol, thinner, benzine or insecticides, etc., may remove the paint or damage the luster and should not be used.

MAINTENANCE

INSERTING THE CASSETTE

(Please see Fig. 2)

- ① Press the EJECT button to open the cassette holder.
- ② Insert the cassette into the cassette holder directing the side (A or B) you want to record or playback toward you and the tape side downward.
- ③ Close the cassette holder cover manually.

REMOVING THE CASSETTE

- ① Press the EJECT button to open the cassette cover.
- ② Remove the cassette by pulling up.
- ③ Close the cassette holder.

1. CLEANING OF HEADS

Dust and tape residue may be accumulated on the surface of the heads, causing poor and wavering sound. The surface of the heads should be cleaned periodically about every 30 hours of playback and recording time. For the best recording and playback, it is recommended to clean the heads before each use.

Cleaning procedure is as follows.

- ① Prepare the cotton swab and pure alcohol.
- ② Press the EJECT button to open the cassette holder and remove the cassette.
- ③ Remove the cassette holder cover as shown Fig. 7.
- ④ Clean the heads, pinch-roller and capstan shaft gently with a cotton swab dampened with alcohol as shown Fig. 8.
- ⑤ Attach the cassette holder cover again.

NOTE: ● Do not use any solution other than alcohol.
 ● Do not touch the heads with metal objects such as screwdrivers.
 ● Do not insert the cassette into the cassette holder until alcohol is completely evaporated.

2. DEMAGNETIZING OF HEADS

The heads can become magnetized after long hours of use. This can cause excessive tape hiss and a loss of high frequencies. The heads should be demagnetized periodically at every about 30 hours of playing or recording.

- ① Prepare a commercially available head-demagnetizer according to its instructions.
- ② Turn off the power switch of the deck.
- ③ Press the EJECT button and remove the cassette holder cover.
- ④ Turn on the power to the head demagnetizer and bring the tip of the head-demagnetizer close to the heads and capstan, and slowly move it up and down four or five times.
- ⑤ Slowly remove the head demagnetizer from the heads to a distance of more than 30 cm (12") and switch the power off.
- ⑥ Attach the cassette holder cover again.

INFORMATION ON CASSETTE TAPE

FOR HIGH RECORDING

C-60 and C-90 tapes are recommended for high recording. C-120 tapes are less suitable due to their reduced thickness and thin magnetic coating. C-120 tapes are damaged and should be handled with extreme care.

HANDLING OF CASSETTE TAPE

Carefully handle the cassette tape since it can be easily damaged.

- Avoid placement at high temperature, near air conditioner, in area of excessive humidity or near strong magnetic field (speaker system, television set, amplifier, etc.)
- Store the cassette in its case to avoid dust.
- Never disassemble the cassette case.
- Before use, eliminate looseness of the cassette tape as shown Fig. 4.

ERASE PROTECTION

Cassettes incorporate a convenient erase-protection device to prevent accidental erasure. When the tabs at the rear of the cassette are removed, as shown Fig. 5, recording cannot take place. The erase-protection device prevents accidental erasure of pre-recorded tape.

If you want to record on a track in which the tab has already been removed, cover the hole with cellophane or vinyl adhesive tape as shown Fig. 6.

POSITIONING OF TAPE SELECT SWITCH

Select the position of TAPE SELECT switch as follows. If your tape is not listed in the table below, please refer to the instructions on the tape for the correct positioning.

Type of Tape		Position of TAPE SELECT switch
Manufacturer	Type	
TDK	D, AD, OD	normal
	SA, SA-X	special
	MA-R, MA	metal
	UL, UD, XLI	normal
MAXELL	XLI	special
	MX	metal
	BHF, AHF	normal
SONY	JHF	special
	DUAD	Fe-Cr
	METALLIC	metal
	CRYSTAL, MASTER I	normal
SCOTCH	MASTER II	special
	MASTER III	Fe-Cr
	METAFINE	metal
	RANGE-2, 4, 6, DR, ER	normal
FUJI	RANGE-4X, UR	special
	SUPER RANGE, SR	metal
	LH, LN, SUPER LHI	normal
BASF	SCR	special
	FCR	Fe-Cr
	SUPER, LH	normal
AGFA	STEREO CHROM	special
	CARAT	Fe-Cr
	PLUS SERIES, GRAND MASTER I	normal
AMPEX	GRAND MASTER II	special
	DX3	normal
DENON	DX5	Fe-Cr
	1H, 3H, 5H	normal
COLUMBIA	1K	special
	MRX2	normal
	CHROMUM DIOXIDE	special
MEMOREX	MRX3	Fe-Cr

FRONT PANEL TERMINOLOGY AND FUNCTIONS

(Please see Fig. 3)

1. POWER (Power switch)

2. EJECT (Eject button)

Press this button for ejecting the cassette holder cover.

3. PHONES (Headphone jack)

Be sure to use headphones with an impedance of 8 ~ 500 ohms.

4. CASSETTE HOLDER

Insert the cassette in this holder directing the side (A or B) you want to hear toward you and the tape side downward.

5. STOP (Stop button)

Press the button to stop the tape.

6. REW (◀◀, Rewinding button)

By pressing this button, the tape rewinds at high speed.

7. PLAY (▶, Playback button)

Press this button for playback or recording.
(See Item 9)

8. FF (▶▶, Fast forward winding button)

By pressing this button, the tape advances at high speed.

9. REC (Recording button)

For recording, press the PLAY button while pressing this button. If a cassette is not loaded or either tab at the rear of the cassette is removed, the failsafe recording mechanism operates and recording will not proceed.

10. PAUSE (Pause button)

Press this button to temporarily stop the tape during recording or playback. By pressing PLAY button, the pause mechanism is released and recording or playback will resume.

11. REC MUTE (Recording muting button)

By keeping this button pressed during recording, it is possible to produce a non-recorded portion of the tape as it causes recording signals to be cut off.

12. TIMER (Timer switch)

Using a commercial timer, you can automatically record or playback at a pre-set time. See page 10 for details.

13. rev (MPSS rewinding button)

By using this button, you can automatically playback the program you want after rewinding at high speed.

14. fwd (MPSS fast forward winding button)

By using this button, you can automatically playback the program you want after advancing at high speed.

15. TAPE SELECT

Select the optimum bias current in recording and the equalizer characteristics in recording and playback according to the tape being used. See page 8 for the correct positioning of this switch.

16. DOLBY NR (Dolby noise reduction switch)

Set this switch to the DOLBY NR "IN" position for recording with Dolby NR. When the recording is made with Dolby NR "IN", be sure to set this switch to the "IN" position during playback. Similarly, when you record with this set to the "OUT" position, play the tape with the same switch setting. Dolby noise reduction system can reduce the tape hiss noise in recording and playback.

17. MIC (Microphone inputs)

Live recording with two microphones can be made via this front panel microphone inputs.

18. REC LEVEL (Recording level controls)

These controls are for adjusting the levels of the recording signals through the INPUT terminals on the rear panel and microphone inputs on the front panel.

19. PEAK LEVEL INDICATOR

These indicators show the peak levels of the input signals when recording as well as the reproduced signals during playback.

20. clear (MPSS clear button)

By pressing this button, the figure of MPSS is reset to "0".

21. MPSS (Music program selector system)

This indicator shows the number of musical pieces to be skipped.

22. set (MPSS set button)

This button is used for setting the number of musical pieces to be skipped.
Press a number of times equivalent to that to be skipped.

23. TAPE COUNTER

At the start of recording, push the reset button to set the tape counter to "000". If you list the recorded programs and the indexing figures of the tape counter, you can easily "cue" a program for playback.

OPERATION

PLAYBACK

- ① Set the tape monitor switch of the amplifier to the TAPE MONITOR or "ON" position.
- Set the TAPE SELECT switch to the correct position according to the tape being used.
- Set the DOLBY NR switch to the DOLBY NR "IN" position for Dolbyized tapes and to the "OUT" position for tapes without DOLBY NR.
- ② Place the recorded cassette into the deck.
- ③ Press the PLAY button to start playback.
- ④ Adjust the sound level by turning the volume control of the amplifier.
- ⑤ Press the PAUSE button to stop the playback temporarily. Press the PLAY button to restart.
- ⑥ Press the STOP button to stop the playback.

RECORDING

- ① Prepare the microphones, turntable or tuner for recording.
- ② Place the cassette into the deck.
- Set the DOLBY NR switch to the "IN" position for recording with DOLBY NR and to the "OUT" position for recording without DOLBY NR.
- Set the TAPE SELECT switch to the correct position according to the tape used.
- ④ Set the TAPE COUNTER to "000" by pressing "reset" button.
- ⑤ Press the PAUSE button while simultaneously pressing the REC button.
- ⑥ Adjust the recording levels with the REC LEVEL controls.

Adjust the recording level while viewing the peak level indicators so the "0 dB" will be lightened and "+ 5 dB" will not be lightened at the highest peak level of the program sources. If "+ 5 dB" will sometimes lightened, the recording level is too high and the recorded sound may be distorted. On the contrary, if "- 5 dB" will not be lightened even at the highest level, the recorded level is too low and SN ratio may be poor.

- ⑦ Start the recording source.
- ⑧ Press the PLAY button to start recording.
- ⑨ Press the PAUSE button to temporarily stop the recording.
- ⑩ Press the STOP button when recording is completely finished.

ERASING

When you record a new program on a pre-recorded cassette, the recorded program is erased and a new program will be recorded. To erase the recorded program only, follow the procedure given below.

- ① Make sure that the tab at the rear of the cassette is not removed. If removed, cover the hole with cellophane tape etc.
- ② Load the cassette on the deck with the side you want to erase towards you.
- ③ Turn the REC LEVEL controls to the MIN. positions.
- ④ Press the PLAY button while simultaneously pressing the REC button to set the deck in the recording mode. Erasing will start.

NOTE: Before erasing is started, remember to set the TAPE SELECT switch to the proper position.

UNATTENDED RECORDING

Recording or playback can be done at any time by using a commercially available timer.

- ① Connect the A. C. power supply to the deck, the tuner (or receiver) and the timer.
- ② Turn the power of the tuner "ON" and tune to the station you want to record.
- ③ Turn the POWER switch of the deck "ON" and set it to the recording stand-by condition (Press the PAUSE button while pressing the REC button).
- ④ Adjust the recording levels.
- ⑤ Set the TIMER switch of the deck to the "rec" position.
- ⑥ Adjust the start-time (ON-time) of the timer to the desired time recording is to begin. Set the timer to the "TIMER-ON" or "TIMER-SET" condition. The power switches of the deck and the tuner should be left in the "ON" position.
- ⑦ At the pre-set time, power is automatically supplied to the deck and the tuner. After a few seconds, recording will start automatically.

NOTE: ① To start playback at a preset time, set the timer switch of the deck to the "play" position.

- ② When the timer is not in use, set the TIMER switch of the deck to the "off" position. If left in the "rec" or "play" position, the tape may be accidentally erased or playback may begin when the deck is turned on.

HOW TO USE MPSS

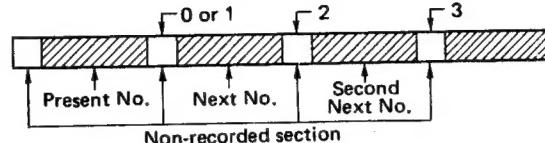
When playing a music tape, if you wish to play a number that is some numbers ahead of the one you are listening to now, this can be automatically achieved by using the MPSS. (Music Program Selector System)

- ① Press the "set" button for a number of times equivalent to the number of pieces you wish to skip. Refer to "SETTING OF PROGRAM SELECTION".
- ② The number of the program selected will be displayed on the MPSS display section.
- ③ If you had made a mistake in setting, press the "clear" button, and press the "set" button again.
- ④ If you wish to select a number that is located after the number you are listening to, this can be achieved by pressing the "fwd" button.
- ⑤ In the case you wish to select a number that is located before the one you are listening to, press the "rev" button.
- ⑥ When the tape is taken up as far as the desired position, the tape automatically starts to playback.

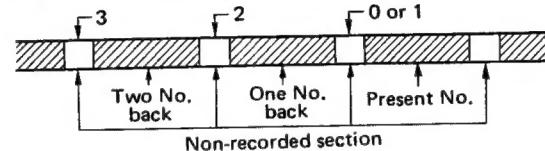
SETTING OF PROGRAM SELECTION

Since the MPSS functions by detecting the non-recorded sections between the numbers, setting is performed in the following manner.

EX, when selecting next number 0 or 1
Program selection setting.



Ex, when selecting a number one back 2
Program selection setting.



For the rest, add "1" have the same function, "0" and "1" have the same function.

When you wish to listen to the next program, or want to listen to the one you are now listening to over again, there is no need to press the "set" button.

TAPES THAT NOT PERMIT PROGRAM SELECTION

In order to have the MPSS function, it is necessary that non-recorded sections lasting no less than 5 seconds each exist between the numbers. Therefore, accurate program selection is not possible with the following tapes.

- Tapes whose non-recorded sections are too short.
- Tapes with noise recorded in the non-recorded sections.
- Tapes containing recording of numbers having long pause intervals.
- Tapes containing numbers having parts that were recorded at very low levels.
- Tapes such as those containing recordings of conversations where the voice is intermittent.

Note:

- ① When fast forward winding, you can't select a program with MPSS, even if press "fwd" button.
- ② When rewinding, you can't select a program with MPSS, even if press "rev" button.

RECORDING TO ENABLE PROGRAM SELECTION

To have the MPSS function properly for tapes containing recordings of music form FM broadcast, etc., it is necessary, as with music tapes, to provide non-recorded sections lasting not less than 5 seconds between the numbers.

In this case, it will be convenient to use the "REC MUTE" switch.

- ① On completion of the number, press the REC MUTE switch.
- ② Keep the "REC MUTE" switch pressed for about 5 seconds, and then with the switch in the pressed condition, press the "PAUSE" button.
- ③ When the set has been switched to the PAUSE mode and tape travel has been suspended, release your finger from the "REC MUTE" switch.
- ④ Press the "PLAY" button to start recording of the next number.